



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,165	10/24/2003	Shuzo Nagami	P/1250-265	1660
2352 7590 12/12/2007 OSTROLENK FABER GERB & SOFFEN 1180 AVENUE OF THE AMERICAS NEW YORK, NY 100368403			EXAMINER BLAN, NICOLE R	
			ART UNIT 1792	PAPER NUMBER
			MAIL DATE 12/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/693,165	Applicant(s) NAGAMI ET AL.	
	Examiner Nicole Blan	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendments to the claims as well as the cancellation of claim 3 in the response dated October 3, 2007 is acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 4-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The last two lines of claim 1, "the controller being only subsequently operable to control said supply element to supply inert gas to said processing chamber", is not properly described in the application as filed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sehgal (U.S. PGPub 2004/0050406, hereafter '406), and further in view of DeYoung et al. (U.S. Patent 6,782,900, hereafter '900).

'406 teaches a processing system, which can be used for drying a substrate [pages 6-7, paragraph 66], thus removing a processing solution adhered to a substrate, as instantly recited. The system of '406 comprises a process chamber [(10), Fig. 2, page 6, paragraph 63] for isolating substrate from the outside atmosphere; substrate support [page 7, paragraph 68]; heating and pressure elements [(22, 24), Fig. 2, page 6, paragraphs 63-64] being fully capable of supplying a vapor to the process chamber when a valve [reads on "a first valve", as instantly claimed, (28), Fig. 2, page 6, paragraph 64] is open, thus realizing rise in temperature and pressure in the processing chamber; a pressure relief valve [reads on "a second valve/a release element", as instantly claimed], being fully capable of releasing the atmosphere in the pressure chamber in an external atmosphere [page 6, paragraph 63], programmable system controllers for the desired operation of system valves, which includes operation of a pressure relief valve [page 6, paragraphs 61-66].

The teaching of '406 does not specifically indicate that releasing the pressure in the process chamber takes place when the processing solution reaches a certain temperature in the process chamber nor does it specifically teach the controller being only subsequently operable to control said gas supply element to supply inert gas to said processing chamber. However, it is

noted that such limitation is mostly concerned with operation of the apparatus rather than with its structural elements. Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). "[A]pparatus claims cover what a device is, not what a device does." *In re Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ 2d 1525, 1528 (Fed. Cir. 1990). Furthermore, since '406 teaches programmable system controllers for the operation of system valves and appropriate temperature sensors and controllers that function to prevent "over temperature" conditions within the chamber, it is within the skill of one ordinary skilled in the art to realize releasing the pressure in the pressure chamber when the processing solution reaches a certain temperature while processing a substrate in the pressure chamber of '406.

'406 remains silent about a gas supply element for supplying inert gas to the pressure chamber. However, such element is conventionally utilized in the art for supplying inert gas to the processing pressure chamber(s) in order to displace process fluids from the processing chamber. Thus, '900 teaches a pressure processing apparatus wherein an inert gas supply element, such as a tank filled with helium, nitrogen or argon is connected to the pressure chamber in order to displace process fluid(s) between processing steps [col. 17, lines 57-60]. Therefore, one skilled in the art motivated by '900, would have found obvious to add the inert gas tank of '900 to the processing system of '406 in order to enhance removal of cleaning/drying composition from the pressure chamber by purging it with the inert gas upon processing the substrate in the pressure chamber of '406.

With regard to claim 4, '406 teaches a heating system for heating a processing chamber [page 6, paragraph 63].

With regard to claim 5, '406 teaches that the pressure chamber includes a drain [page 6, paragraph 63].

In specific regard to claim 6, it is noted here that "[i]nclusion of material ("pure water") worded upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d 966, 25, USPQ 69 (CCPA 1935).

Response to Arguments

6. Applicant's arguments filed October 3, 2007 have been fully considered but they are not persuasive.

Applicant argues that no release valve is disclosed in Sehgal and that Sehgal does not disclose an apparatus capable of supplying vapor, releasing ambient atmosphere or supplying an inert gas. The Examiner respectfully disagrees and would like to point out that these limitations are met as described in more detail above.

Applicant argues the claim requires structure to perform the described elements. The Examiner respectfully disagrees. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ 2d 1647 (1987). Sehgal's controllers are programmable and therefore are inherently capable of performing the claimed functions.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Blan whose telephone number is 571-270-1838. The examiner can normally be reached on Monday - Thursday 8-5 and alternating Fridays 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on 571-272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

Application/Control Number:
10/693,165
Art Unit: 1792

Page 7

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NRB



MICHAEL B. CLEVELAND
SUPERVISORY PATENT EXAMINER